

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) ~~A-In a method of embedding an additional layer of error correction into an error correcting code encoding multiword information, wherein which includes the steps of encoding information is encoded into code words of said an error correcting code over a first Galois field, and wherein arranging a number of code words are arranged in the columns of a code block comprising a user data sub-block and a parity data sub-block, a method of embedding an additional layer of error correction into the error correcting code, said method comprising~~
5 the steps of:
10 the steps of:

- encoding the rows of at least said user data sub-block separately or in groups using a horizontal error correcting code over a second Galois field larger than said first Galois field to obtain horizontal parities, ~~;~~ and
- 15 - embedding said horizontal parities as an additional layer in said error correcting code.

2. (Currently Amended) ~~A-The method as claimed in claim 1,~~
wherein a predetermined number of bits having a predetermined value is added to each symbol of said user data sub-block before encoding the rows of said user-data sub-block.

3. (Currently Amended) ~~A-The~~ method as claimed in claim 2, wherein one or two bits having bit value zero are added to each symbol of said user data sub-block.

4. (Currently Amended) ~~A-The~~ method as claimed in claim 1, wherein said first Galois field is $GF(2^8)$, and wherein said code block is a Long Distance Code (LDC) block comprising LDC code words, ~~in particular code words~~ over the first Galois field $GF(2^8)$,
5 arranged in the columns of said LDC block.

5. (Currently Amended) ~~A-The~~ method as claimed in claim 4, wherein in said encoding the rows step, each row of said user data sub-block is encoded separately using a [306, 304, 3] Reed Solomon code over a Galois field $GF(2^9)$.

6. (Currently Amended) ~~A-The~~ method as claimed in claim 4, wherein in said encoding the rows step, each row of said user data sub-block is encoded separately using a subspace subcode of a Reed Solomon code, ~~in particular using a subspace subcode of a Reed~~
5 ~~Solomon code~~ over a Galois field $GF(2^9)$.

7. (Currently Amended) ~~A-The~~ method as claimed in claim 4, wherein in said encoding the rows step, the rows of said user data sub-block are encoded in groups of ~~at least two consecutive rows,~~

~~in particular of three consecutive rows using a Reed Solomon code~~
5 over a Galois field $GF(2^{10})$.

8. (Currently Amended) ~~A The~~ method as claimed in claim 4,
wherein in said encoding the rows step, the rows of said user data
sub-block are encoded in groups of ~~at least two consecutive rows~~
~~using a subspace subcode of a Reed Solomon code, in particular in~~
5 ~~groups of three consecutive rows using a subspace subcode of a Reed~~
Solomon code over a Galois field $GF(2^{10})$.

9. (Cancelled).

10. (Currently Amended) ~~A The~~ method as claimed in claim 1,
wherein said horizontal parities are encoded by ~~an additional error~~
~~correcting code, in particular by a~~ Burst Indicator Subcode (BIS)
comprising Reed Solomon code words over $GF(2^8)$.

11. (Withdrawn) A method of decoding an error correcting code
into which an additional layer of error correction is embedded
according to a method of claim 1, wherein information is encoded
into code words of said code over a first Galois field and wherein
5 a number of code words are arranged in the columns of a code block
comprising a user data sub-block and a parity data sub-block, said
method comprising the steps of:

- extracting said horizontal parities from said error correcting code,

10 - decoding the rows of at least said user data sub-block separately or in groups using the horizontal error correcting code, which had been used for encoding in the method of claim 1, over the second Galois field larger than said first Galois field using said horizontal parities.

12. (Currently Amended) ~~Apparatus~~ An apparatus for embedding an additional layer of error correction into an error correcting code, wherein information is encoded into code words of said code over a first Galois field, and wherein a number of code words are arranged
5 in the columns of a code block comprising a user data sub-block and a parity data sub-block, said apparatus comprising:

means for receiving the error correcting code;

- means for encoding the rows of at least said user data sub-block separately or in groups using a horizontal error
10 correcting code over a second Galois field larger than said first Galois field, ~~to obtain thereby forming at least~~ horizontal parities, ~~and~~

- means for embedding said horizontal parities as additional layer in said error correcting code; and

15 means for outputting said modified error correcting code.

13. (Withdrawn) Apparatus for decoding an error correcting code into which an additional layer of error correction is embedded

according to a method of claim 1, wherein information is encoded into code words of said code over a first Galois field and wherein a number of code words are arranged in the columns of a code block comprising a user data sub-block and a parity data sub-block, comprising:

- means for extracting said horizontal parities from said error correcting code,

- means for decoding the rows of at least said user data sub-block separately or in groups using the horizontal error correcting code, which had been used for encoding in the method of claim 1, over the second Galois field larger than said first Galois field using said horizontal parities.

14. (Withdrawn) Storage medium storing data in form of code words of an error correcting code into which an additional layer of error correction is embedded according to a method of claim 1, wherein horizontal parities are embedded as additional layer in said error correcting code and wherein a number of code words of said code are arranged in the columns of a code block comprising a user data sub-block and a parity data sub-block.

15. (Withdrawn) Signal comprising data in form of code words of an error correcting code into which an additional layer of error correction is embedded according to a method of claim 1, wherein horizontal parities are embedded as additional layer in said error correcting code and wherein a number of code words of said code are

arranged in the columns of a code block comprising a user data sub-block and a parity data sub-block.

16. (Withdrawn) Computer program comprising program code means for causing a computer to implement the steps of the method of claim 1 when said program is run on a computer.